

SITUATION REPORT NO. 1
INCIDENT NO. 98-001 (Continuation of 97-001)
DATE: March 30, 1998 TIME: 2:00 p.m.

TO: Governor Edward T. Schafer
State Capitol
Bismarck, ND 58505

1. NATURE OF DISASTER: Devils Lake Basin flooding.
2. DEATHS AND INJURIES: No change from the 1997 reports.
3. DAMAGES: The National Weather Service (NWS) issued a revised Spring Snowmelt Flood Outlook report on March 13. The outlook indicates Devils Lake could peak at 2 ½ feet higher than the 1997 record level of 1,443 feet. If precipitation is above normal, and evaporation is below normal, the lake could peak at 1,445.5 feet or higher. If precipitation is below normal, the lake could peak below 1,445 feet. The northwest part of the Devils Lake Basin has snow depths ranging from 12 to 24 inches. Water equivalents are generally two to four inches, although some areas have as much as five to six inches. Snow depths in the southeastern half of the basin range from three to six inches with water equivalents of one-half to 1.5 inches. The outlook calls for the lake to peak in June or July.

Higher lake elevations will result in waves splashing above existing rip-rap protection on area roads and highways, causing some erosion damage to highway shoulders. The N.D. Department of Transportation (DOT) will begin soon to increase the elevation of the rip-rap protection on the lake crossings.

DOT workers expect problems to occur at the south Mauvais Coulee crossing on U.S. Highway 281. The elevation of the bridge at that site is 1,445.8 feet, only slightly above the predicted maximum lake elevation of 1,445.5 feet. DOT employees are evaluating options for keeping the crossing open should the lake reach or exceed its predicted high. The north crossing of Mauvais Coulee on U.S. Highway 281 is at a somewhat higher elevation.

The Mauvais Coulee crossing on U.S. Highway 2 near Churchs Ferry is also a possible trouble site. The bridges are high enough to clear the predicted lake elevation. However, if another high flow similar to the 1997 runoff is experienced, it is probable that the roadway will again go under water for a short period, as it did last year. The District DOT staff is prepared to take emergency action, either with temporary diking or road raising measures, to keep U.S. Highway 2 open to traffic.

N.D. Highway 1 south of Lakota near Stump Lake is also threatened. The department is making tentative plans to relocate N.D. Highway 1 around the east end of Stump Lake. This work will probably be required only if Devils Lake spills into Stump Lake.

The State Water Commission staff has estimated that one foot of overflow water from Devils Lake would cause a 10-foot rise in Stump Lake. The Nelson County lake has approximately 7,000 acre feet of water and measures 1,406.5 feet in elevation.

Approximately 25 homes and structures in Ramsey County, another 25 in Benson County and 48 on the Spirit Lake Nation Reservation would be affected by flood waters if Devils Lake rises to 1,445.5 feet. Another 25 Ramsey County lakeshore structures are threatened by flood waters and are only protected by a road.

Farmers who participate in the Adult Farm Management Program at the University of North Dakota (UND) - Lake Region report that they have experienced a drop of more than 50 percent of their farm income between 1996 and 1997. Net farm income dropped from an average of \$50,500 in 1996 to \$23,000 in 1997, according to information provided by UND-Lake Region to the Disaster Outreach

Project. Of the \$23,000, a total of \$20,000 came from government farm subsidies. Reasons for the drop in net income include severe flooding in the area, flood-related crop diseases, and low commodity prices. Workers for the Disaster Outreach Project report that financially-strapped farmers are also worried about how they can continue paying real estate taxes after more than seven years of flooding.

4. RESOURCES:

LOCAL: No change from previous reports.

STATE: No change from previous reports.

FEDERAL: No change from previous reports.

5. VOLUNTEER ACTION: A case manager worker from Lutheran Social Services/Lutheran Disaster Response will assist Devils Lake area rural families. Lutheran Disaster Response is securing office space at Peace Lutheran Church. As part of its relief efforts, Lutheran Disaster Response plans to compile a resource listing of agencies and services provided to area residents affected by flooding. Staff for Lutheran Disaster Response will coordinate efforts with Disaster Outreach Project workers.

6. MAJOR ACTIONS: A State Flood Coordination Center meeting was held in Devils Lake on March 19, 1998. Following is a summary of information reported during that meeting.

North Dakota National Guard

The staff at Camp Gilbert C. Grafton reported that work will resume by May 12 on efforts to connect the facility to the Ramsey County Rural Utilities' sewer system. This sewer line will allow the camp to discharge directly into the sewer system and abandon its sewage lagoon, which is threatened by rising Devils Lake flood waters.

Building 0355, a garage, near Military Point will be relocated from its lakeside location by the end of March. Building 8080, a shed, at the Engineering Equipment Training Site has already been moved.

The National Guard plans to build up the road around the Ammunition Supply Point this summer so that it can serve as a berm protecting the camp from flood waters. The Ammunition Supply Point is near the old rifle range at Camp Grafton.

N.D. Department of Transportation (DOT)

The N.D. Department of Transportation is reviewing the impacts the 1998 forecasted maximum lake elevation for Devils Lake would have on area highways. In general, it appears that most state highways are above the expected lake level. However, it is anticipated that some problems will be encountered with wave splash and debris deposition on certain highways during windy days, depending on wind direction and speed.

As soon as weather conditions permit, contractors are expected to continue work to finish the 1997 grade raises. Remaining work primarily consists of completing the placement of aggregate base and applying a liquid asphalt prime coat to waterproof the gravel.

Plans are being prepared to surface most of the grade raise areas this summer with hot mix asphalt. These plans are contingent upon the lake remaining relatively stable. These projects are due to be let in May and June. Most of U.S. Highway 281 will be paved or overlayed, from Minnewaukan to U.S. Highway 2. All of N.D. Highway 19 will be paved and/or repaired, from U.S. Highway 281 to Devils Lake. N.D. Highway 20 will be paved at the Acom Ridge and Camp Grafton grade raises, except in areas that truck drivers are expected to travel when transporting haul material to the N.D. Highway 57 Narrows project. On N.D. Highway 57, south of the lake, some filling and rip-rap work will be completed near Ft. Totten.

The grade raise project on N.D. Highway 57 at the Narrows will be let on April 17. Plans are to elevate the road to 1,456.5 feet and the bridge to 1,462.5 feet. It is expected that this project will take nearly two construction seasons to complete. The grade raise is expected to cost \$12.9 million. Predicted lake elevations will slow the work and make it more difficult and expensive.

DOT has placed load restrictions on N.D. Highway 20 in an effort to keep the road open. The highway currently has a load restriction that allows for a maximum gross vehicle weight of 65,000 pounds. If necessary, DOT will place a load restriction on the highway, allowing for only 20,000-

pound maximum gross vehicle weight and a 10,000-pound maximum axle weight.

N.D. Department of Insurance

The Department of Insurance continues to monitor Devils Lake area events and is available to address questions and concerns regarding private insurance matters.

N.D. Game and Fish Department

Staff at the N.D. Game and Fish Department expects boat access work and expenditures this spring at Devils Lake will be less than last year. With a three-foot or less lake rise, the existing access sites should remain functional.

N.D. Parks and Recreation Department

A lake elevation of 1,445 feet will require relocation of the maintenance facility at Shelters Grove. One hundred feet of the campground entrance road would have to be raised and protected. Access to the day use area and picnic shelter would be lost and would require relocation or raising of the access road.

N.D. Highway Patrol

This spring and summer, the N.D. Highway Patrol will be working closely with the Ramsey and Benson County Sheriff's Offices to encourage safe travel in construction zones and in areas affected by flooding. Troopers will increase their patrols, visibility, and enforcement measures. The Highway Patrol will also respond to and investigate complaints related to road conditions and construction equipment.

The Highway Patrol, with the assistance of area law enforcement agencies, will also be working with N.D. DOT and construction companies to facilitate Devils Lake area road closures as necessary.

North Central Planning Council

The North Central Planning Council has approximately \$8,000 available for new applicants through its Urgent Needs Temporary Diking Program. The program pays one-half of a homeowner's diking and sewer installation expenses to a maximum of \$2,000. The program, funded through Community Development Block Grant (CDBG) money, will end after all money is allocated.

Work has begun on efforts to repair and reroute flood-threatened sewer lines for Ramsey County Rural Utilities. The Planning Council received \$600,000 from the U.S. Army Corps of Engineers (USACE) and \$313,000 from the CDBG program for the sewer project. Staff at the council estimates another \$200,000 is needed to complete the work .

The Planning Council has also completed work on an environmental review for a \$123,000 project to install a 50,000-gallon holding tank for sewage and to dig a well at Mercy Hospital in Devils Lake. This project will provide emergency utilities in the event of a flood disaster. The project will receive 80 percent funding from supplemental CDBG funds.

N.D. State Water Commission

The State Water Commission provided the following updates on continuing projects in the Devils Lake area:

Devils Lake Emergency Outlet

The proposed emergency outlet for Devils Lake would follow the Peterson Coulee corridor. The outlet components include: a pump station located on the shore of West Bay, just south of Minnewaukan; approximately 13 miles of pipeline; and an energy dissipation structure located adjacent to the Sheyenne River. The pipeline will have a maximum pumping capacity of 300 cubic feet per second (cfs), but the flow will be controlled to maintain the 450 mg/l sulfate standard and 600 cfs channel capacity in the Sheyenne River. The pipeline alternative was chosen because the cost was similar to other alternatives, and the pipeline will minimize environmental impacts.

The U.S. Army Corps of Engineers (USACE) is in the process of preparing an Environmental Impact Statement (EIS) for the Emergency Outlet. As part of this process, the USACE held public scoping meetings at Valley City, Lisbon, Cooperstown, Spirit Lake, Devils Lake, Grand Forks and Fargo the week of March 22-28 to help define issues to be included in the EIS.

If the proposed project is built, the earliest possible date for construction would be in the spring of 1999. This is dependent upon whether the USACE asks for and is granted the emergency provisions of the National Environmental Policy Act (NEPA) by the Council for Environmental Quality. If the emergency provision is not invoked, earliest possible construction would be in the spring of 2001.

Lake Level Protection System

The levees currently protecting the city of Devils Lake have a top elevation of 1450 feet. They are designed to provide protection from a lake elevation of 1445, with five feet of freeboard. Plans call for a levee raise that will take place this year. Bases of the levees will be widened, and they also will be elevated to 1452 feet, providing protection to 1447 feet. Widening of the base will give the levees more stability and allow future raises if necessary. The project is estimated to cost up to \$24 million. In the bids, the USACE will also ask the contractors for an additional bid for raising the top of the levees to 1457 feet.

Available Storage Acreage Program (ASAP)

The State Water Commission is pursuing additional sites and accepting applications for its ASAP program. The program encourages area landowners to store water on their land to help alleviate the flooding problems around Devils Lake. The program stored approximately 22,000 acre feet of water in 1997 and is expected to do the same in 1998. Of the \$1.5 million allocated to the program, \$967,000 has been committed to renewing previous ASAP sites.

Nelson County Emergency Management

The Nelson County Water Board, the city of Michigan and other governmental entities are working with the Red River Planning Council to secure financial assistance for the Lake Loretta Water Management Plan. This interagency plans calls for drawing the water level down for three lakes, Loretta, Rose and Mary, which have combined into one lake. The water would be diverted into the Forest River. These efforts are designed to mitigate the threat of damages to Michigan's sewer system and to alleviate cropland inundation.

Sink hole areas have been noted on N.D. State Highway 1 south of Lakota. The Nelson County Emergency Manager and the 911 Coordinator are developing maps of flooded and damaged roads. The 911 dispatch center will use the maps to provide road information to emergency responders.

During the past two years, sheet water problems have caused a loss of approximately \$20 million in farm-related revenue in the Michigan area of Nelson County, according to the county extension agent. A county-wide review of agricultural losses is underway.

Landowners who feel they may be directly affected by increased levels at Stump Lake have reportedly been selling cattle in an attempt to reduce herd sizes. Landowners in that area are concerned about the loss of pasture to flood waters. Additional problems resulting from an overflow would include damages to Nelson County roads 15, 23, 23A and 27 and numerous township roads. Dutch Point Road is currently inundated.

Benson County Emergency Management

Work on the Grahams Island access road will resume this spring after bids for road paving are awarded. Last summer, the access road was raised from 1,440 feet to 1,450 feet after flood waters inundated the road. Grahams Island State Park was closed for the summer.

In anticipation of increasing Devils Lake levels, the Benson County Commission issued an Emergency Declaration on March 17. That declaration also includes the city of Minnewaukan.

If Devils Lake rises to 1,445.5 feet, some roads in Benson County will be inundated, including the Brinsmade Road and one of its bridges. This road, located along the Mauvais Coulee, is one of the major roads connecting the cities of Minnewaukan and Brinsmade.

A rise of 1,445.5 feet would place the Woods-Rutten Road under one foot of water. During last year's flood, the road was used as an alternate route for N.D. State Highways 20 and 57.

City of Minnewaukan Flood Committee

The Flood Committee also anticipates that the final "City of Minnewaukan Assessment" will be completed by the USACE within two weeks. This report includes hydraulic and economic analyses of flood protection measures consideration for the city. A public meeting is scheduled for April 9 for presentation of this report and to discuss future plans to address potential flooding in the area.

Ramsey County Emergency Management

Ramsey County officials are pursuing another waiver of the National Flood Insurance Program (NFIP) based on the revised Spring Snowmelt Flood Outlook issued by the National Weather Service.

In response to predicted lake level rises, the Military Road will be raised either in 1998 or 1999. Water-related problems are anticipated on Ramsey County Road #4, south of Southam, near Fenster Slough.

Ramsey County Rural Utilities

Ramsey County Rural Utilities has let bids for the second phase of efforts to relocate flood-threatened sewer and water lines. The second phase includes relocating lines in the Lakewood and Acorn Ridge areas, located south of Devils Lake on N.D. Highway 2. Additional project work includes elevating two main lift stations in the Acorn Ridge area, manholes on the west side of Creel Bay, and a lift station in the Peterson Subdivision.

The main sewer line in the Woodland Resort area will be relocated because of erosion in the area. The sewer system is experiencing a build-up of mud and debris as a result of repeated flooding in the area. An estimate to clean the sewer system totaled \$1 million. Contributing to the high cost are problems created by hauling water into areas where no fire hydrants are located.

As part of its maintenance efforts, Ramsey County raised a lift station and slip lined one mile of sewer line along N.D. Highway 19.

The U.S. Army Corps of Engineers

The USACE has spent \$12 million since the fall of 1996 to elevate the lake level protection system for the city of Devils Lake. The levees now stretch seven miles long, protecting the city of Devils Lake and local adjacent areas.

On February 19, the USACE awarded a \$4.1 million contract to Park Construction of Minneapolis, MN, for the construction of the east ditch pumping station. The station will have a 205,000 gallon per minute (gpm) capacity and should be operational by spring 1999.

The USACE anticipates that more than \$20 million in construction work to the city of Devils Lake's levee system will be underway by May or June. The top of the levees will vary from 1,452 feet to 1,457 feet, depending on available funding. Work should be completed by mid 1999.

The USACE has expended \$213,000 thus far on efforts to assist Ramsey County Rural Utilities with relocation of flood-threatened water and sewer lines.

Indian Health Service, U.S. Health and Human Services

The Indian Health Service (IHS) recently allocated \$245,000 of its emergency funds to assist Spirit Lake Nation with purchasing a sewer jetter to clean silt and debris from sewer systems. The funds will also be used to reimburse projects that have provided water and sewer services to flood-relocated homes.

Spirit Lake Nation is obtaining 85 manufactured homes that the Federal Emergency Management Agency (FEMA) located in North Dakota as part of 1997 spring flood recovery efforts. The tribe will be requesting funds from Indian Health Service for water and sewer services to serve the mobile homes.

7. ASSISTANCE NEEDED: No change from the 1997 reports.

8. OUTSIDE HELP ON SCENE: No change from the 1997 reports.
9. OTHER: The next State Flood Coordination Center meeting is scheduled for 1:30 p.m., April 16, 1998, at the Ramsey County Courthouse basement meeting room.

Other web site addresses for flood recovery information include:

N.D. Division of Emergency Management: <http://www.state.nd.us/dem>
N.D. League of Cities: <http://www.ndlc.org>
N.D. State Water Commission: <http://water.swc.state.nd.us>
N.D. Attorney General Office: <http://www.state.nd.us/ndag>
N.D. Department of Agriculture: <http://www.state.nd.us/agr/>
U.S. Army Corps of Engineers: <http://www.ncs-wc.usace.army.mil>
U.S. Geological Survey: <http://srv1dndbmk.cr.usgs.gov/public/index.html>

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